

AMENDMENTS TO THE CLAIMS

Claims 1-11 (Cancelled)

Claim 12 (Currently Amended) A process for the oxidation of organic substrates by means of $^1\text{O}_2$, which consists essentially of adding 40-60% strength H_2O_2 to hydrophobic organic substrates which react with $^1\text{O}_2$ in a monohydric $\text{C}_1\text{-C}_8$ alcohol as a solvent in the presence of 5-25 mol% of a homogeneous molybdate catalyst, whereupon H_2O_2 is catalytically decomposed to give water and $^1\text{O}_2$, oxidizing said substrate to the corresponding oxidation products with precipitation of the catalyst, removing said precipitated catalyst by centrifugation or filtration and recycling said catalyst to said oxidation.

Claim 13 (Previously Presented) The process as claimed in claim 12, wherein the substrates which react with $^1\text{O}_2$ are olefins which contain 1 to 10 C=C double bonds; $\text{C}_6\text{-C}_{50}$ phenols, polyalkylbenzenes, polyalkoxybenzenes; polycyclic aromatics having 2 to 10 aromatic rings; alkyl sulfides, alkenyl sulfides, aryl sulfides which are either mono- or disubstituted on the sulfur atom, and $\text{C}_4\text{-C}_{60}$ heterocycles having an O, N or S atom in the ring, which may be unsubstituted or may be mono- or polysubstituted by halogens, cyanide, carbonyl groups, hydroxyl groups, $\text{C}_1\text{-C}_{50}$ alkoxy groups, $\text{C}_1\text{-C}_{50}$ alkyl groups, $\text{C}_6\text{-C}_{50}$ aryl groups, $\text{C}_2\text{-C}_{50}$ alkenyl groups, $\text{C}_2\text{-C}_{50}$ alkynyl groups, carboxylic acid groups, ester groups, amide groups, amino groups, nitro groups, silyl groups, silyloxy groups, sulfone groups, sulfoxide groups or by one or more NR^1R^2 radicals in which R^1 or R^2 may be identical or different and are H; $\text{C}_1\text{-C}_{50}$ alkyl; formyl; $\text{C}_2\text{-C}_{50}$ acyl, $\text{C}_7\text{-C}_{50}$ benzoyl, where R^1 and R^2 may also together form a ring.

Claim 14 (Previously Presented) The process of claim 12, wherein the reaction temperature is between 0 and 50°C.

Claim 15 (Previously Presented) The process of claim 13 wherein the reaction temperature is 15 to 35°C.

Claim 16 (Previously Presented) The process of claim 12 wherein 2 to 10 equivalents of H₂O₂ are used depending on the substrate used.

RESPONSE

The claims are 12-16.

The above amendment places claim 12 in "consists of" format, which clearly excludes the additional alkaline material which the prior art such as Van Laar believed necessary to produce $^{18}\text{O}_2$ reactions with a molybdate catalyst.

Thus, the present invention employs a $^{18}\text{O}_2$ reaction with a molybdate catalyst without the use of added alkaline material.

See the last full paragraph on page 3 and first full paragraph on page 4 of the April 15, 2004 Response in connection with the foregoing.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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